CEDAR GROVE VETERINARY SERVICE NEWSLETTER

MARCH 2019

GLOBAL CLIMATE CHANGE AND COWS: WHAT IS THE REAL STORY?

Global climate change has been a big debate and concern for the greater part of the last 20 years. There are a lot of arguments and factors thrown around as to why our world is currently in this predicament. One in particular that might have stuck out to a lot of farmers is that cows are considered one the major factors contributing to greenhouse gas emissions. Some reports even place that cows contribute upwards of 51% of all the greenhouse gases! So, what is the real truth about cows, where are the exaggerations coming from, and what is being done by the industry to minimize their footprint in the climate change game?

When it comes to cows, the biggest concern is the methane they produce. Methane pollution is estimated to be responsible for 25% of global climate change. Methane is more problematic that other greenhouse gasses, such as carbon dioxide, because it traps more heat which can lead to more problems.

Cows produce methane through gas release by way of cow "farts" and cow "burps." Surprisingly, it is actually the cow "burps" that are responsible for 90-95% of a cow's contribution to methane emissions, with the rest being attributed to flatulence and manure.

As previously mentioned, a report from 2009 indicated that cows are responsible for 51% of global greenhouse gases. Even though that number stuck with the general public, it is a complete exaggeration. According to the United Nations Food and Agriculture Organization, livestock — including cows, pigs, sheep and other animals — are responsible in total for about 14.5 percent of global greenhouse gas emissions. Of these animals, cows are the primary offenders. There are an estimated 1.3-1.5 billion cows on the planet and each animal releases 30 to 50 gallons of methane a day on average. So, while it is true that cows produce a whole lot of methane, it is not as high as is often reported and is not the main cause of our planet's methane problem.

Unsurprisingly, most methane emissions come from humans. In fact, since 1750, the amount of methane in the atmosphere

TEST YOUR DAIRY FARMING KNOWLEDGE

1) What is the average rate for milk haulers in the in the Upper Midwest in 2018?
   a) $0.20/cwt
   b) $0.28/cwt
   c) $0.68/cwt
   d) $0.71/cwt

2) According to the most recent NAHMS study, how much do the odds of death increase in calves that experience any disease prior to weaning as compared to those that experience no disease?
   a) 1.5 times
   b) 2.8 times
   c) 4.7 times
   d) 6.1 times

3) What percentage of sires in the US in the Holstein, Brown Swiss, and Jersey breeds have polled genetics?
   a) 5%
   b) 10%
   c) 15%
   d) 17.5%

Answers on back

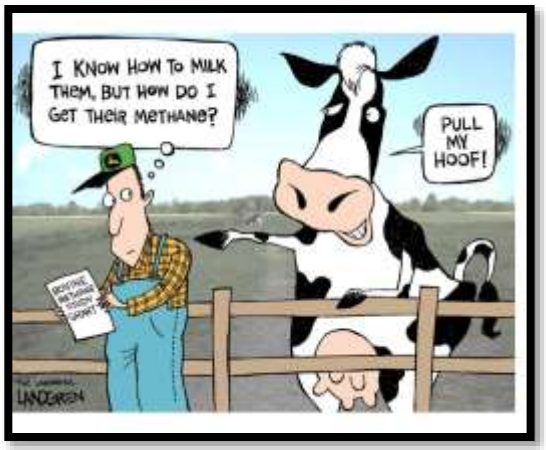
has doubled because of human activity. The oil and gas industry are the top contributors, creating one-third of all methane emissions. As companies extract and transport oil and natural gas, methane leaks from their pumps, pipelines and wells at a rapid rate. In June 2018, a journal showed that US oil and gas operations are leaking 60 percent more of the harmful gas than government estimates had predicted.

Another source of methane emissions that many people don't really consider are plastic bags. In a study published in August 2018, researchers discovered that many kinds of plastic — especially the material used in grocery bags — emitted methane when exposed to light and continued to release it even in the dark. When submerged in salt water for 152 days, the plastics also secreted methane. It is important to note that these results occurred in a laboratory, but it does cause concern over the impact that all the plastic trash that have been dumped in landfills and the oceans are having on the environment.

So, what can be done about methane emissions as a whole? Some methane does get absorbed by forest soil and permafrost. Forest soils contain bacteria that essentially eat methane; however, these bacteria are getting less efficient at doing. The arctic permafrost also absorbs methane, but as some of the permafrost starts to melt, it may be releasing as much methane as it is absorbing.

This brings things full circle back to the livestock industry and cows, in particular. The agricultural industry seems to be taking most of the hits when it comes to methane emissions, but they are also one of the industries pioneering the most change to reduce their footprint. A Texas lab is experimenting with giving cows probiotics in their feed and water, which has led to a 50 percent reduction in methane emissions. In California, feeding cows a mixture of dried seaweed and molasses has shown promising results, while in Spain, giving them small amounts of the chemical compound in onions has done the same. Moreover, all over the world, farmers are investing in methane digester systems to capture the methane that builds up in their manure tanks. This methane can be used to fuel their operations or be sold to power companies. The manure can still be used for fertilizer as well.

Overall, as with most things, the story that is being reported is not always the whole truth. While agriculture does have contributions to greenhouse gases and by extension global climate change, it is not the major player that many websites, social media posts, and newspaper articles make it out to be. Moreover, the industry should be proud of the changes that are being developed with the clear goal of reducing agricultures' overall impact. Some of these changes may even benefit farmers through more efficient milk production or energy by-products. It may seem like every aspect of farming is a fight right now with consumers. But when it comes to methane emissions, some solid facts to educate may go a long way to protecting and defending our industry.



Dairy Farming Knowledge Answers

1) B 2) C 3) A

National Agriculture Week is March 10th-16th

Cedar Grove Veterinary Services is Celebrating!!

March 12th-In-clinic cook-off for staff members using Wisconsin agriculture products

March 13th-Tasting of Wisconsin agriculture products for clients (make sure to stop by the clinic for a sample)

March 14th- "What Agriculture Means to Me" Post a picture of what Wisconsin agriculture means to you on our Facebook page using the hashtag #FoodforLife